

PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

Nov. 25, 1862.—E. W. H. Holdsworth, Esq., F.Z.S., in the Chair.

The following extracts were read from a letter addressed to the Secretary by Dr. G. Bennett, F.Z.S., dated Sydney.

“I have just received by Capt. McLeod a rough-dried specimen of a *Megapodius*, found abundantly over the New Hebrides and other groups of islands of the Southern Pacific. My specimen was procured from the island of Nua Fou, where it is named ‘Mallow’ by the natives. It accords with the description of *M. Freycineti*. The bird measures 14 inches from the tip of the beak to the end of the tail; the plumage is of an uniform blackish-brown colour, the mandibles, feet, and legs yellow. At Tanna they gave it the English name of ‘Bush Fowl;’ at Sandwich Island it was named Tarboosh. At the island of Nua Fou, Capt. McLeod says the bird lives in the scrubs in the centre of the island, about a large lagoon of brackish water, which has the appearance of an extinct crater; the birds lay their eggs on one side only of this lagoon, where the soil is composed of a sulphur-looking sand; the eggs are deposited from 1 to 2 feet beneath the surface. The locality frequented by these birds is, at this island, under the protection of the king or chief, and by his permission only can the birds or eggs be procured. The number of eggs deposited in the mounds varies, as the eggs are laid by different birds in succession; but as many as forty eggs are said to have been procured from one mound. At the other islands the birds visit the sandy beaches in retired localities near the sea about the months of September and October, and deposit their eggs in mounds of sand a short distance one from the other. Thus this bird has the habits of the Freshwater Tortoises, which scoop a pit in the sand near a river, deposit their eggs, and cover them up; when hatched, the young force their way out of the sand, and, guided by their instinct, make for the river. Mr. Dawson, who procured living birds from the Island of Sava or Russell Island, which unfortunately died on the passage to Sydney, informs me that the female lays daily from two to four eggs, and that the female on board laid two eggs daily until the time of her death. The natives of the various islands inhabited by these birds collect these eggs for sale (for they are richer and more delicious than those of the fowl), in baskets of two dozen each. The eggs are sometimes found fresh and good when opened, whilst others contain partially-formed young in different stages, even to the full-fledged bird just ready to emerge from the shell into active life. This might be expected, considering the irregular intervals of time the eggs are laid. The eggs I have vary slightly in size, but are usually of a pale brownish-red colour, and measure, for the most part, 3 inches in length and $1\frac{3}{4}$ inch in breadth.

“Our pair of Mooruks are thriving well in the Botanic Gardens: we have placed them in a large grassed enclosure, 117 feet in length

and 45 feet broad, interspersed with a few trees and a small circular pond of water about 2 feet deep, where they are very fond of bathing. There is a thatched shed in the centre for further shelter, if required; and the whole is surrounded by a wire fence, 5 feet high. In this enclosure with the Mooruks are two native companions, an Emu and a sedate Jabiru. The latter is a very solitary, timid bird, always seen by himself. He moves with stately strides, and, if pursued, runs with great rapidity. When the Mooruks first arrived, they were placed with the Water-fowl, in an enclosure where there was a deep tank of water; they are very fond of bathing (which, I also observe, obtains with the Emu), and one of them leaped, as usual, into the water; but the sides being perpendicular and made of cut stone, it could not get readily out of it. Finding itself getting exhausted, it struggled against the edge of the tank, cut its face and severely injured the throat, laying open the pharynx, through the gaping wound of which the food passed; this was stitched, and the bird soon got quite well. From the birds being nearly drowned several times, they were removed to the enclosure before mentioned, with a more shallow pond of water. Mr. Dawson (who has just returned from New Britain) brought another young bird, but, from some cause or other, it died a few days after its arrival. It is now in the Australian Museum. He says the natives pronounce the name of this bird as if written 'Moorup.' Fifteen eggs, brought by Mr. Dawson, that I have examined (of which he gave me two, and also a pair for the Australian Museum) differ considerably in size and colour. They have all been exposed more or less to the influence of heat and various atmospheric influences; so that none are seen of the beautiful grass-green colour of the recently-laid eggs in the Zoological Gardens in the Regent's Park. One was a small abortive egg, barely one-half of the natural size, but with similar markings. The birds are brought off for sale by the natives in every stage of growth, from the young chick to the full-grown bird, with its dark plumage, purple neck, and trilobed crest. The medium of purchase is pipes and tobacco."

The following letter, addressed by Dr. Bennett to the 'Sydney Herald' of September 3rd, 1862, was also read to the meeting:—

"Since the publication of my observations on the Toothed-billed Pigeon (*Didunculus strigirostris*) in the 'Sydney Herald' of August 19th, 1862, I have received a communication from the secretary of the Acclimatization Society of Victoria, enclosing some valuable notes given to them, respecting this rare and extraordinary bird, by the Rev. John B. Stair, of Broadmeadows, Victoria, who was formerly resident for some time at the Samoan or Navigator group of islands, considered the exclusive habitat of this singular bird. I have now selected those portions relating to the bird which are either new to science or will more fully add to its history, and complete, as far as possible, our knowledge of this nearly extinct bird. Mr. Stair says he has seen the *Didunculus*, and that it is named by the natives *Manu Mea*, or red bird, from the most predominant colour of its plumage

being chocolate-red. It was formerly found in great numbers; and this assertion may excite some surprise that this remarkable form of bird should not have been seen and procured by the early navigators. Now, Mr. Stair observes, as I have for some time suspected, the bird is nearly, if not entirely, extinct. It feeds on plantains, and is partial to the fruit of the 'soi,' a species of *Dioscorea* or yam, a twining plant found abundant among the islands, and producing a fruit resembling a small potatoe. The habits of this bird, Mr. Stair observes, are exceedingly shy and timid. Like the Ground-Pigeons, it roosts on bushes or stumps of trees, and feeds on the ground. It also builds its nest in such situations. During the breeding-season both parents aid in the duty of incubation, and relieve each other with great regularity; and so intent are they when sitting on the eggs as to be easily captured. It was in this way two living specimens were obtained for Mr. Stair. They are also captured by the natives with bird-lime or springes, and shot with arrows—the sportsman concealing himself near an open space in which some quantity of the 'soi,' their favourite food, has been placed.

“The first living bird obtained was accidentally killed; the second, when placed in confinement, at first became sullen and refused food, but soon became reconciled to captivity, and thrived well. The natives fed it upon boiled taro (the root of the *Caladium esculentum*) rolled into oblong pellets, in the same manner as they feed their pet Wood-Pigeons and Doves. On the departure of a friend for Sydney in 1843, Mr. Stair availed himself of the opportunity of sending the bird here, for the purpose of ascertaining if it was known, and, if so, with what genus it was to be classed, and whether it was a new species. Some natives on board the vessel paid great attention to it, and fed it carefully during the voyage, and it reached Sydney alive. His friend informed him that he could obtain no information respecting the bird, whether it was a new species or otherwise, but left it with some bird-stuffer; and Mr. Stair heard nothing more respecting it until his return to England in 1847 or 1848, when he mentioned the subject to Mr. G. R. Gray of the British Museum, who showed him a drawing of the bird, and told him the subsequent history of the specimen he sent to Sydney.

“The power of wing of most of the pigeon tribe is very great, and it also obtains in this bird. It flies through the air with a loud noise, like our Top-knot Pigeon (*Lopholæmus antarcticus*), found in the Illawarra district, and many other of our Australian Pigeons; and Mr. Stair describes it when rising as making so great a noise with its wings, that, when heard at a distance, it resembles a rumbling of distant thunder, for which it may be mistaken. Mr. Stair concludes his remarks by observing that, when on the eve of departing for England in 1845, although he made every effort to procure more specimens of the bird, and offered what was then considered large rewards, he could not succeed in obtaining any more specimens. He considers they may perhaps yet be found at Savaii, the largest and most mountainous island of the group; but he does not think they at present exist on the island of Upolu.”

A communication was also read from Sir Robert Schomburgk, H.M. Consul-General for Siam, dated Bangkok, August 15th, stating that a male of the splendid Pheasant *Diardigallus Crawfurdi* was still alive in his possession, and in excellent health; and giving the following description of the female bird, of which he also sent a Chinese drawing and some feathers:—

“Cere oblong, of a bright-red colour, such as it is in the male, set with short hair-like feathers of a blackish colour, disposed in rows following the cere in its outline; eye black, with a golden-coloured iris; bill horn-coloured. The crown of the head, and the short feathers under the chin, of a slate-colour, but otherwise a reddish brown is the prevailing colour; of such a tint is likewise the mantle, only somewhat darker, and the feathers are speckled with black; those of the throat and breast are lighter in tint, and frequently margined at their ends with white to the extent of 2 lines.

“Primaries and scapulars of a dark slate-colour, almost black, barred transversely at intervals with bands of white speckled with black. These bars do not possess regular outlines. The large or middle tail-feathers are marked in a similar manner; the lower or side tail-feathers are of a reddish brown.

“The thighs are clothed with dark-brown feathers; below the knee the feet are naked and of a bright red colour, similar to the cere. There is no trace of spurs upon the leg.

“I give the measurements taken from what I believe to be the oldest of the two hens in my possession:—

	ft.	in.	tenths.
Length from tip of bill to end of middle tail-feather	1	6	0
Height	0	10	5
Length of tail	0	9	0
—— of legs	0	7	4
—— from the foot or tarsus to thigh	0	4	0
Length of foot from the tip of the middle claw to that of the hind toe	0	3	5
—— of the large or middle toe	0	2	0
—— of wing from shoulder to end of largest primary quill	0	10	0
Depth of wing	0	4	2
Circumference over the crown of the head and round the region of the eyes	0	5	0
Length of cere	0	2	0
Depth	0	1	0
Length of bill	0	1	2”

Sir Robert Schomburgk added that Crawfurd’s drawing of the male bird alluded to by Mr. Gould in his account of this bird in the ‘Birds of Asia,’ “although stiff, was otherwise good,” and that the habitat of this Pheasant was now fully ascertained to be the Shan States to the east of Kieng-mai, at Muang Nan, Muang Phi, &c.

The following letter, addressed to the Secretary by Dr. J. Shortt,

F.Z.S., dated Chingleput, 9th August, 1862, was read to the meeting :—

“SIR,—I have much pleasure in sending you a short account of the Viper *Daboia elegans* (*Vipera Russellii*)—the Tamil name being ‘Kunuadi Vyrien,’ or ‘Kuturee Pamhoo.’

“Since sending you the skin, with skull entire, I have succeeded in procuring several specimens, alive and dead, both here and on the Shervaroy Hills, during a recent stay there of two months. The largest specimen in my collection at present measures 5 feet in length, and 7 inches in circumference at the thickest part of its body. Its head is large, elongate, depressed, rounded on the sides, and covered with acutely and regularly-keeled scales; nostrils large, subsuperior, anterior, and in the centre of a ring-like shield, edged with a large scale above; eyes convex, pupil round; nasal shield smooth in front; superciliary shield narrow, elongate, and distinct in front; jaws weak, upper toothless, with large, slightly curved, double fangs; lower jaw toothed; tongue long and forked: colour brown, with three rows of oblong (in the young, circular or oval) white-edged brown spots; two brown spots on each side of the occiput, separated by a narrow, oblique, yellow temporal streak. Scuta 168, subcaudals 52.

“From the three rows of white-edged spots being linked to each other, it is commonly called the Chain Viper. The Tamil name of ‘Kunuadi Vyrien’ literally means Glass Viper; that of ‘Kuturee Pamhoo,’ Scissors Snake. This name it receives from having double fangs, which are invariably present, of equal length, if not on both, on one side at least: these the natives of Southern India fancy resemble a pair of scissors.

“It is very common in these parts, and also at an elevation of 4800 feet above the sea (Shervaroy Hills): at the latter place I procured two specimens; the largest measured $4\frac{1}{2}$, and the other, which was young, was 1 foot in length. These reptiles are generally found under stones and in rocky places; frequently in the low country it is found in prickly-pear bushes (*Opuntia vulgaris*).

“In their habits they are extremely active for their size, and live on frogs, mice, birds, &c. On opening the Viper I procured on the Shervaroy Hills, I removed from its inside a *Mynah* (Indian Grackle), from a second in this place a field-rat, and from a third an immense toad was taken. These Vipers are readily killed by the slightest blow; on one occasion I had one caught alive by fixing a noose round its body, but raising it from the ground and suspending it by the noose for a few seconds killed it.

“The natives dread these snakes greatly, as their bite is said to prove rapidly fatal. Although they are common in this district, I have not heard of an instance of this occurring during a residence of five years at this place. Dr. A. Hunter, of our service, tells me that when he was Zillah Surgeon here, some years ago, a sepoy was bitten by one, and that the man’s life was saved by his sucking out the wound. During my stay on the Shervaroy Hills, the first specimen that was brought to me was immediately recognized by my friend B. A. Daly, Esq.,

a coffee-planter, who related the following circumstance that occurred to him a few years ago. Mr. Daly was out shooting with a few dogs (mongrel spaniels), when he came upon one of these Vipers, and the dogs having attacked the snake before he could kill it, three were bitten, one after the other; the first died almost instantly, the second in about two hours after, whilst it was being carried home, and the third lingered for nearly three months from emaciation, general debility, loss of appetite, &c., and eventually made a good recovery. This we can readily understand: the first dog bitten received the largest quantity of poison, whilst the second received less, and when it came to the third the supply was no doubt all but exhausted, and the rapidity with which the wounds must have been inflicted left no time for fresh poison to be secreted. This accounts for the ultimate recovery of the dog.

“In January last a lady at this place was returning from a walk with her child, followed by a bull-terrier puppy about six months old; her house was situated some distance from the gate, and the road on either side was covered with spear-grass. It was just dusk. The puppy suddenly darted in front and began to bark vociferously. Although the lady had seen nothing, she took alarm at the movements of the puppy, and called out to me as I happened to be passing by the gate at that moment. On going to see what was the matter, I found a large Viper coiled up in the centre of the road, and the puppy making a great noise from a respectful distance. The snake was closely coiled up, with the neck bent abruptly backwards, and the head fixed almost horizontally; it began to puff itself out something after the manner of the Puff-Adder, and hissed loudly, intently watching the movements of the dog, no doubt awaiting an opportunity to strike it, when I called the puppy away. The instant the puppy turned its head, the snake glided with the rapidity of lightning into the surrounding grass and disappeared. The next day it was killed in the same garden, and brought to me; it measured 4 feet 6 inches in length.

“These Snakes were formerly designated ‘Cobra Manil’ by the Portuguese, in consequence of their bite proving as rapidly fatal as that of the Cobra. The word Manil is a corruption of the Tamil word Mannunippāmhoo, which literally means Earth-eating Snake, and is the name given by the natives to the *Uropeltis grandis*, commonly termed ‘Double-headed’ Snake, and which they believe lives entirely on earth, from its being frequently found underground.”

The following papers were read:—

DESCRIPTION OF SOME NEW SPECIES OF MAMMALIA.

BY DR. JOHN EDWARD GRAY, F.R.S., F.L.S., ETC.

Among some Mammalia which Mr. A. R. Wallace has lately sent to the British Museum, which he collected in Morty Island in 1861, are two species of a frugivorous Bat, which does not appear to have been hitherto registered in the Catalogue. This Bat may be easily known from all the other *Cynopteri* by the extraordinary length of

its tail, which induces me to form for it a section or subgenus, which I propose to call *Uronycteris*.

CYNOPTERUS (URONYCTERIS) ALBIVENTER.

Tail elongate, free, produced beyond the narrow, short, interfemoral membrane. Nostrils much produced, tubular, far apart at the base, and diverging outwardly. Fur brown-olive, with greyer base to the hairs. Face and throat only slightly hairy, grey. Sides of the neck and breast yellow-brown. Side of the body brown. Chest and middle of the belly white. Wings brown.

Hab. Morty Island (*A. R. Wallace*).

The length of the forearm-bone 2 inches; length of the tail (dry) nearly $\frac{3}{4}$ of an inch.

The wing-bone, on the upper surface of the wing, of both specimens is marked with some irregular white spots. These may be only accidental, or even artificially produced in the process of preservation or by carriage, as the spots on the two sides of the same wings are more or less unlike, and those of the two specimens are dissimilar.

Mr. Keilish, the furrier, has kindly sent to the British Museum for examination the skin of a Leopard which he has received from Japan. It is well tanned, and marked on the inner side with the red impressions of two Japanese seals. The skin at first sight seemed much like that of a fine-coloured Hunting Leopard, but it is at once distinguished from that animal by the comparatively shorter legs, by the larger size and brown centre of the black spots, and from all the varieties of the Leopard by the linear spots on the nape and the spots on the back not being formed of roses or groups of smaller spots. I propose to call it

LEOPARDUS JAPONENSIS.

Fur fulvous, paler beneath. Back and limbs ornamented with ovate or roundish unequal-sized black spots. The spots on the shoulders, back, and sides converted into a ring by a single central spot of the same colour as the fur. Spots on the back and legs large, oblong, and transverse. Head with small, regularly disposed, black spots. Nape with four series of narrow elongated black spots (the outer ones sometimes confluent into lines), and with a series of large black spots on each side of the back of the neck. Chest with a series of larger spots, forming a kind of necklace. Tail elongate, very hairy, spotted, paler, and with four black rings at the tip.

Hab. Japan.

The skin in its tanned state is 4 feet 6 inches, and the tail 2 feet 10 inches long.

Mr. W. Fosbrooke has kindly presented to the British Museum a small and beautiful species of Boshbock, which was captured by John Dunn, Esq., in the Ungo-zy Forest, between the Umbrelans and Umblatore, in the country of the Amazula. Mr. Dunn could not learn that the natives had any special name for this animal.

It is a most peculiarly-marked species, and of a very small size. The hunter mistook it for a young animal, and fed it with milk, on which it died; but when it was examined, the mammæ were found dilated with milk, showing that it was approaching full age, and probably had lately produced a fawn. It is the smallest species of the genus, standing only 10 inches high to the top of its head, and weighing not more than three pounds. It is most like *Cephalophus Whitfieldii*, figured in the Knowsley Menagerie, from a specimen in the British Museum which was brought from the Gambia by Mr. Whitfield. It differs from that species in the general shade of the brown colour; and there is no white about that animal, which is so prominent in the Natal specimens.

CEPHALOPHUS BICOLOR.

Fur soft, brown, with the rump, the whole of the hind legs, the chin, throat, chest, belly, the inner side of the fore legs, a broad ring over the fore hoofs, and a large spot occupying the front of the face and forehead pure white. The ears blackish, white within. The side of the forehead darker brown. The crumen on the side of the face linear, well marked. Horns not present in the female sex.

Hab. Natal.

Mr. R. Swinhoe, having shown me a part of the collection of mammals which he formed while residing in the island of Formosa, has kindly allowed me to describe a new specimen of Wild Goat or Goat-Antelope.

This species agrees in all its characters with the Cambing-outang (*Capricornis sumatrana*) of Sumatra, and the *Capricornis crista* of Japan, but is very distinct from either of them. In colour it more nearly resembles the Japanese species, *C. crista*, which has a white face; but it is easily distinguished from that species, which I only know from a figure and very general description in Schegel's 'Fauna Japonica.' I propose to call it, after its discoverer,

CAPRICORNIS SWINHOII.

The fur harsh and crisp, brown, with a narrow streak down the back of the neck; a spot on the knee and the front of the fore legs below the knee black. The hind legs are bay. The sides of the chin pale yellowish. The underside of the neck yellow-bay—this colour being separated from the darker colour of the upper part of the neck by a ridge of longer, more rigid hairs. The ears are long, brown, paler internally. The horns are short and conical. The skull has a deep and wide concavity in front of the orbits, and a keeled ridge on the cheek.

NOTES ON THE BEAVER IN THE ZOOLOGICAL GARDENS.

BY A. D. BARTLETT.

During one of the heavy storms of wind and rain that prevailed during the last month a large willow-tree was partly blown down. The limbs and branches of this fallen tree were given to many of the animals, and to them proved to be a very acceptable windfall.

To the Beaver, however, I wish to direct especial attention, as this animal has exhibited in a remarkable manner some of his natural habits and intelligence. One of the largest limbs of the tree, upwards of 12 feet long, was firmly fixed in the ground, in the Beaver's enclosure, in a nearly upright position, at about twelve o'clock on Saturday last. The Beaver visited the spot soon afterwards, and walking round this large limb, which measured 30 inches circumference, commenced to bite off the bark about 12 inches above the ground, and afterwards to gnaw into the wood itself. The rapid progress was (to all who witnessed it) most astonishing. The animal laboured hard, and appeared to exert his whole strength, leaving off for a few minutes apparently to rest and look upwards, as if to consider which way the tree was to fall. Now and then he left off and went into his pond, which was about 3 feet from the base of the tree, as if to take a refreshing bath. Again he came out with renewed energy, and with his powerful teeth gouged away all round the trunk. This process continued till about four o'clock, when suddenly he left off and came hastily towards the iron fence, to the surprise of those who were watching his movements. The cause of this interruption was soon explained; he had heard in the distance the sound of the wheelbarrow, which, as usual, is brought daily to his paddock, and from which he was anxiously waiting to receive his supper. Not wishing to disappoint the animal, but at the same time regretting that he was thus unexpectedly stopped in his determination to bring down this massive piece of timber, his usual allowance of carrots and bread were given to him; and from this time until half-past five he was engaged in taking his meal and swimming about in his pond. At half-past five, however, he returned to his tree, which by this time was reduced in the centre to about 2 inches in diameter. To this portion he applied his teeth with great earnestness, and in ten minutes afterwards it fell suddenly with great force upon the ground.

It was an interesting sight to witness the adroit and skilful manner in which the last bite or two were given on the side on which the tree fell, and the nimble movement of the animal to the opposite side at the moment, evidently to avoid being crushed beneath it. Upon examining the end of the separated tree, it was found that only one inch in diameter was uncut; and it was of course due to the nearly erect position in which the tree was put into the ground that it stood balanced, as it were, upon this slender stem. After carefully walking along its entire length as it lay on the ground, and examining every part, he commenced to cut off about two feet of its length, and by seven o'clock the next morning he had divided it into three pieces: two of these he had removed into the pond, and one was used in the under part of his house.

The Beaver, the subject of the foregoing remarks, was presented to the Society by the Hudson's Bay Company, in the autumn of 1861, and was probably then about six months old. It is, no doubt, less vigorous than the large wild animals of this species, who would, in all probability, bring down trees of much larger dimensions in a shorter time. In fact, it was evident that our Beaver was a novice in the undertaking, as he more than once slipped and rolled over on

his back in his eagerness to accomplish the task. It was impossible to witness the actions of this animal without being struck by the amount of skill and intelligence exhibited. When the space cut through towards the centre was too narrow to admit its head, its teeth were applied above and below so as to increase the width from the outside towards the centre, until the remaining parts above and below formed two cones, the apices of which joined in the middle. Again and again the animal left off gnawing, and, standing upright on its hind legs, rested its front feet on the upper part of the tree, as if to feel whether it was on the move. This showed clearly that the creature knew exactly what it was about.

MISCELLANEOUS.

'The Land and Freshwater Mollusks of the British Isles.'

To the Editors of the Annals and Magazine of Natural History.

GENTLEMEN,—While thanking you for your notice of my little book, 'The Land and Freshwater Mollusks of the British Isles,' I beg permission to offer a word of comment on some remarks therein made on some changes in nomenclature. Your reviewer says:—

"*Planorbis imbricatus* is changed to *Planorbis crista*, on the authority of the following synonymy:—

"*Nautilus crista*, Linnæus (1758), Syst. Nat. 10th edit. p. 709.

"*Turbo nautilus*, Linnæus (1767), Syst. Nat. 12th edit. p. 1241.

"And the author remarks,—'It may be observed, on reference to the synonymy, that Linnæus made two species of this.' But Linnæus did not make two species out of *Planorbis nautilus*. The facts are that he described *Nautilus crista* in the tenth edition of the 'Systema Naturæ;' and in the twelfth edition changed the name of the species to *Turbo nautilus*, and referred to his *Nautilus crista* of the tenth edition as a synonym. We can only account for Mr. Reeve's mistake by supposing that he has never consulted the twelfth edition—a supposition which is confirmed by the fact that throughout his volume the tenth edition is almost invariably referred to."

As this declaration of opinion involves a principle in nomenclature to which I cannot agree, I beg leave to state that I purposely referred throughout my volume to the tenth edition of the 'Systema Naturæ' for the authority of the Linnæan species, after the example of M. Moquin-Tandon, because it is the first edition in which the species are established by the definition of specific names and characters. I followed also Moquin-Tandon in adopting the name of *crista* given to this *Planorbis* in the tenth edition of the 'Systema Naturæ,' because I agree with the learned author of the 'Mollusques Terrestres et Fluviales de France' in thinking that Linnæus was not justified in changing it, in his twelfth edition, to *nautilus*. An author is no more justified in changing his own established name of a species than any other writer would be.

With reference to your reviewer's observations on my remark that